COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION BY THE PUBLIC)	
SERVICE COMMISSION OF THE)	
ENVIRONMENTAL SURCHARGE)	
MECHANISM OF BIG RIVERS	CASE NO.	96-327
ELECTRIC CORPORATION AS BILLED)	
FROM OCTOBER 1, 1995 TO)	
MARCH 31, 1996)	

ORDER

On August 31, 1994, the Commission approved Big Rivers Electric Corporation's ("Big Rivers") environmental surcharge application and established a surcharge mechanism.¹ Pursuant to KRS 278.183(3), at six-month intervals, the Commission must review the past operations of the environmental surcharge. After hearing, the Commission may, by temporary adjustment in the surcharge, disallow any surcharge amounts found not to be just and reasonable and reconcile past surcharges with actual costs recoverable pursuant to KRS 278.183(1). The Commission hereby initiates its first six-month review of Big Rivers' environmental surcharge as billed from October 1, 1995 to March 31, 1996.²

In anticipation that the parties in Case No. 94-032 will desire to participate in this proceeding, the Attorney General's Office ("AG"), the Kentucky Industrial Utility Customers

Case No. 94-032, Application of Big Rivers Electric Corporation to Assess a Surcharge Under KRS 278.183 to Recover Costs of Compliance with Environmental Requirements of the Clean Air Act, final Order dated August 31, 1994.

Since Big Rivers' surcharge is billed on a two-month lag, the amounts billed from October 1995 through March 1996 are based on costs incurred from August 1995 through January 1996.

("KIUC"), the City of Henderson, Kentucky ("Henderson"), and the Henderson Utility Commission ("Utility Commission") will be deemed parties to this proceeding.

IT IS THEREFORE ORDERED that:

- 1. The procedural schedule set forth in Appendix A, attached hereto and incorporated herein, shall be followed in this proceeding.
- 2. Big Rivers shall appear at the Commission's offices on the date set forth in Appendix A, to submit itself to examination on the application of its environmental surcharge as billed to consumers from October 1, 1995 through March 31, 1996.
- 3. Big Rivers shall give notice of the hearing in accordance with the provisions of 807 KAR 5:011, Section 8(5). At the time publication is requested, Big Rivers shall forward a duplicate of the notice and request to the Commission.
- 4. Big Rivers shall, by the date set forth in Appendix A, file the information requested in Appendix B, attached hereto and incorporated herein, along with its prepared direct testimony in support of the reasonableness of the application of its environmental surcharge mechanism during the review period.
- 5. All requests for information and responses thereto shall be appropriately indexed. All responses shall include the name of the witness who will be responsible for responding to questions related to the information, with copies to all parties of record and an original and 10 copies to the Commission.
- 6. The AG, KIUC, Henderson, and the Utility Commission are granted full intervention in this proceeding.
- 7. Big Rivers monthly environmental surcharge reports and supporting data for the review period shall be incorporated by reference into the record of this case.

8. The record of Case No. 94-032 is incorporated by reference into the record of this proceeding.

Done at Frankfort, Kentucky, this 12th day of July, 1996.

PUBLIC SERVICE COMMISSION

Chairman

Vice Chairman

Commissioner

ATTEST:

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 96-327 DATED 7/12/96

Big Rivers shall serve responses to the information request in Appendix B no later than	08/09/96
All additional requests for information to Big Rivers shall be served no later than	08/23/96
Big Rivers shall serve responses to additional requests for information no later than	09/13/96
Intervenor testimony, if any, in verified prepared form shall be served no later than	09/27/96
All requests for information to Intervenors shall be served no later than	10/11/96
Intervenors shall serve responses to requests for information no later than	11/01/96
Last day for Big Rivers to publish notice of hearing date	12/03/96
Public Hearing is to begin at 10:00 a.m., Eastern Standard Time, in Hearing Room 1 of the Commission's offices at 730 Schenkel Lane, Frankfort, Kentucky, for the purpose of cross-examination of witnesses of Big Rivers	
and Intervenors	12/10/96
Briefs shall be filed by	01/15/97

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 96-327 DATED 7/12/96

INITIAL INFORMATION REQUEST

- 1. Prepare ES Forms 5.0, 5.1, and 5.2 as identified in Appendix B to the August 31, 1994 Order in Case No. 94-032 for the billing period October 1995 through March 1996. On ES Form 5.0, columns 2, 3, and 6 should include information for the expense months of August 1995 through and including March 1996. Column 5 will not be applicable since this is the first six-month review. ES Forms 5.1 and 5.2 should include information for the expense months of August 1995 through and including January 1996. Include any supporting workpapers, assumptions, or other documents as necessary.
- 2. The Commission approved several actions as part of Big Rivers' compliance plan in Case No. 94-032. For each action listed below, indicate the percentage of completion as of January 31, 1996. If the action is still in progress as of January 31, 1996, indicate whether the action was on schedule, behind schedule, or ahead of schedule. Provide the expected completion date if different from information filed in Case No. 94-032.
- a. Installation of a scrubber at Henderson Municipal Electric Power and Light System's Station Two ("Station Two") and share some existing scrubber facilities with the Green Station.
 - b. Installation of continuous emission monitors at all units.
 - c. Installation of low-NO_x burners at all Phase I units.
- d. Switching the Coleman Station to a medium-sulfur coal of 2.6 lb. SO₂/MMBtu.

- e. Increase the percentage of SO₂ removed by the existing scrubber at the Green Station and substituting the Green Station into Phase I of the acid rain program.
- 3. The ES Form 3.0 for the August 1995 expense month reported the unamortized balance of Account No. 254 related to the 1993 sale of emission allowances to be \$22,289,225.46. In Case No. 94-032, Big Rivers was ordered to accrue a carrying charge on the unrefunded portion of the net proceeds from August 31, 1994 until the full amount had been amortized.¹
- a. Provide the calculations which show how the August 1995 balance was determined. Include all supporting workpapers and assumptions.
- b. Reconcile this balance with the net proceeds of \$22,900,000 that Big Rivers indicated in Case No. 94-032.
- c. Explain how the August 1995 unamortized balance can be lower than the reported net proceeds of \$22,900,000, given that August 1995 was the first expense month recovered in the environmental surcharge and that carrying charges had been accruing since August 31, 1994.
- 4. In calculating the net current period monthly environmental revenue requirements on ES Form 3.0, Big Rivers must include as an offset the amortization of any additional allowance sales and revenues from scrubber by-product sales. During the expense months of August 1995 through and including January 1996, Big Rivers reported a total amount for offset of \$188,480.

Case No. 94-032, Order dated August 31, 1994, page 20.

- a. For each of these expense months, indicate how much of the reported amount was from allowance sales and how much from by-product sales.
- b. If there have been no scrubber by-product sales during this period, describe Big Rivers' efforts to sell scrubber by-products. Explain why Big Rivers has not been successful in this effort.
- 5. Refer to the lime inventories reported by Big Rivers on ES Form 3.2 for the expense months of October 1995 through and including January 1996. The price per ton reported for the Green Station lime is approximately \$10 per ton higher than that reported for Station Two. Explain the reason(s) for this difference.
- 6. During the review period, Big Rivers reported a monthly balance for materials and supplies of approximately \$3,400,000. Provide a general description of the items maintained as materials and supplies. Why is it necessary to maintain a \$3,400,000 balance for these items?
- 7. Refer to the January 1996 expense month ES Form 3.3 and supporting workpapers. The supporting workpapers reflect the sale of allowances related to Big Rivers' 1993 allowance sale. Identify the vintage year of the allowances included in this sale.
- 8. The compliance plan approved by the Commission in Case No. 94-032 provided that the Coleman Station would be switched to a medium-sulfur coal of 2.6 lb. SO₂/MMBtu. However, while reviewing Big Rivers' first environmental surcharge filing, Commission Staff was informed that fuel switching was not implemented at the Coleman Station. Big Rivers had chosen to purchase high sulfur coal coupled with an amount of emission allowances necessary to achieve emissions equal to 2.6 lb. coal. Through the

end of January 1996, Big Rivers has purchased 17,041 allowances under this arrangement. Although initially classified as "General" allowances, in January 1996, Big Rivers transferred 13,800 allowances to the three Coleman Station allowance balances. From August 1995 through and including January 1996, Big Rivers has reported utilizing 37,500.9 allowances, none of which were from purchases.

- a. When did Big Rivers determine it was not going to fuel switch the Coleman Station? Describe the factor(s) which impacted this decision.
- b. Why did Big Rivers make this change in its overall compliance plan?

 Describe what had changed since the August 31, 1994 adoption of Big Rivers' compliance plan.
- c. Why wasn't Commission approval of this revision to the compliance plan sought by Big Rivers?
- d. What analysis was performed by Big Rivers to determine that buying high sulfur coal, packaged with allowances, was a reasonable and cost-effective compliance strategy? Provide copies of all analyses or studies performed to evaluate this compliance strategy.
- e. How is the quantity of allowances to be purchased each month determined? Include any supporting workpapers or other calculations.
- f. How is the monthly allowance price determined? Include any supporting workpapers or other calculations.
- g. Why did Big Rivers classify these purchased allowances as "General" rather than assigning them to the Coleman Station balances? Provide copies of any documentation which supported Big Rivers' initial classification.

- h. Why has Big Rivers utilized only its Environmental Protection Agency ("EPA") awarded allowances, and none of its purchased allowances? Explain how Big Rivers determines which allowances (EPA or purchased) will be utilized. Include a description of the income tax effects considered in this determination.
- 9. At the end of December 1995, Big Rivers' emissions allowance inventory was 29,645.2 allowances. Of this total, 15,640 were purchased allowances. In the August 31, 1994 Order in Case No. 94-032, the Commission suggested that Big Rivers should consider developing an emission allowance management strategy.
- a. Has Big Rivers developed an emission allowance management strategy? If yes, provide copies of the strategy. Otherwise, explain why a management strategy has not been developed.
- b. How does Big Rivers determine its optimal level of allowance inventory? Provide copies of analyses or workpapers used to make this determination.
- c. Did the actual results of allowance usage in 1995 match Big Rivers' expectations?
- d. Was it necessary that Big Rivers purchase allowances during 1995, given that it had received adequate inventory from EPA? Explain the response.
- 10. Explain the methods and approaches which Big Rivers used to make the expense allocations reported on ES Forms 3.4 and 3.5. Explain how Big Rivers determined that the methods or approaches resulted in reasonable expense allocations.
- 11. For each of the accounts listed below, indicate the expense allocation method or approach (direct assignment, percentage of labor hours, etc.) used during the review

period. If more than one method or approach was used for the account, make the indication at the subaccount level.

- a. Account No. 403 Depreciation Expense.
- b. Account No. 408 Taxes Other Than Income.
- c. Account No. 502 Steam Expenses.
- d. Account No. 512 Maintenance of Boiler Plant.
- e. Account No. 555.152 Purchased Power HMP&L.
- f. Account No. 923 Outside Services Employed.
- g. Account No. 924 Insurance Expense.
- h. Account No. 925 Injuries and Damages.
- i. Account No. 926 Employee Pensions and Benefits.
- 12. For the expense months of August 1995 through January 1996, the amount reported for Steam Expenses (Account No. 502) fluctuated between \$962,015 to \$1,610,033. Explain the reason(s) for this level of variance during the review period.
- 13. For the December 1995 expense month, Big Rivers reported maintenance of boiler plant expenses for the Wilson Station (Account Nos. 512.401, 512.402, 512.411, and 512.412) which appear to be significantly higher than normal. Explain the reason(s) for the level of maintenance of boiler plant expenses reported for the Wilson Station in December 1995.
- 14. Big Rivers included an environmental compliance charge associated with a purchased power transaction with SIGECO in the January 1996 expense month. Explain how this transaction qualifies as compliance-related purchased power and how the compliance charge was determined.

- 15. While processing Case No. 94-032, the Commission retained an outside consultant to assist in its review of Big Rivers' compliance plan. The Commission issued its final Order in Case No. 94-032 on August 31, 1994. During the expense months of August through December 1995, Big Rivers reported monthly consultant fees ranging from \$1,547 to \$11,308, for a total of \$31,926.
- a. Identify the consultant(s) paid by Big Rivers during the August to December 1995 period. Include copies of billing invoices.
 - b. Explain the nature of the consultants' services.
- c. If the charges are for consultants other than the one hired by the Commission to review Big Rivers' environmental compliance plan, explain why these expense should be recovered through the environmental surcharge.
- 16. Provide a schedule of Non-Member Sales which lists on a monthly basis the purchaser, quantity of power purchased, and the sale revenues. The schedule should cover the expense months of August 1995 through and including January 1996.
- 17. During the first six-month environmental surcharge review for the Louisville Gas and Electric Company ("LG&E"), the issue of modifying the E(m) calculation, moving from a total company to retail only, was raised. E(m) is the Gross Environmental Surcharge Revenue Requirement. The Commission found that this issue should be investigated in detail in LG&E's next six-month review. Given that Big Rivers' E(m) is calculated on a total company basis, and that a distinction between member and non-member sales exists, it is appropriate to also consider this issue for Big Rivers. In addition to responding to the following questions, Big Rivers should address this subject in its testimony.

- a. Should the monthly calculation of E(m) for Big Rivers be modified to only reflect a retail (or member sales only) amount, rather than total company? Explain.
- b. Describe the revisions Big Rivers believes would be necessary to accomplish such a modification. Explain how the suggested revisions would result in a reasonable allocation to retail customers of monthly total company environmental surcharge revenue requirement.
- c. Describe how the revisions discussed in part (b) would impact the determination of the over- and under-recovery amount and correction factor. Explain any changes which would be needed in calculating the amount or correction factor.
- d. The contract with Oglethorpe Power Corporation permits Big Rivers to charge the rates and charges that the Commission has approved for sales to Big Rivers' member cooperatives. Describe what impact, if any, the terms of this contract would have on the determination of a retail-only E(m).
- 18. Prepare a schedule showing Big Rivers' monthly sales in KWH and KW, showing the sales as either Member Sales or Non-Member Sales. Provide the monthly information for the period January 1995 through and including January 1996. Provide supporting documentation and include an explanation of any assumptions necessary for the schedule preparation.
- 19. Provide the following financial information for Big Rivers' member sales and non-member sales activity. Provide supporting documentation and include an explanation of any assumptions used in preparing the financial information.
 - a. An annual income statement for calendar year 1995.
 - b. Big Rivers' 1995 average annual generation cost in cents per KWH.

- 20. For the period August 1995 through and including March 1996, compare the monthly percentage that Big Rivers' member sales revenues represented of its total company revenues with the monthly percentage that Big Rivers' member KWH sales represented of its total company KWH sales.
- 21. In its August 31, 1994 Order, the Commission stated that it expected the actual Station Two scrubber costs and expenses to be in line with Big Rivers' estimates.² Prepare a schedule comparing the Station Two scrubber costs and expenses by account or subaccount as estimated in Case No. 94-032 with the actual costs and expenses as of January 31, 1996. Explain any cost overruns of 5 percent or more for capital projects and expense overruns of \$500 or more. Include cross-references to the Case No. 94-032 record for estimated costs and expenses.
- 22. During the review period, Big Rivers has submitted several ES Project forms. In the August 31, 1994 Order, the Commission required that this form be submitted when Big Rivers proposed to include a new capital investment in the surcharge. Any new capital investment proposed for inclusion in the surcharge will undergo prior Commission review. Appendix C to this Order is a listing of all new capital investments proposed by Big Rivers through the end of January 1996. ES Project forms submitted which only revised original cost estimates are not included.
- a. Locate and mark each investment shown in Appendix C on a copy of the January 1996 expense month ES Form 3.1.

² August 31, 1994 Order, page 17.

- b. For each new capital investment listed in Appendix C, specifically identify where that investment was included in the approved compliance plan.
- c. If the new investment was not part of the approved compliance plan, explain why Big Rivers believes it should recover the costs in the surcharge. Also explain why Big Rivers has not filed an application seeking to modify its approved compliance plan.

APPENDIX C

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 96-327 DATED 7/12/96

NEW CAPITAL INVESTMENTS - ES PROJECT FORMS

A. Cover Letter dated September 20, 1995:

- 1. C-3 Burner Management System, Coleman, Work Order 628.
- 2. Umbilical Stack Sampling, Spectrum, Coleman, Work Order 510.
- 3. Potable Water Line, Scrubber Control Room to Slaker Building, Green, Work Order 509.
- 4. Ash Sluice Pump Discharge Valve, Plug, Tufline, 12 inch, Green, P.O. No. 95942, Petter Supply.
- 5. Green G-1 Thickener Return Pump, Green, Work Order 595.
- 6. Green G-2 Thickener Return Pump, Green, Work Order 633.
- 7. Green IUCS Building Sump Pump & Piping, Green, Work Order 594.
- 8. Monitor, Gas Flow/Temperature, United Sciences, HMP&L 2, Work Order 499.
- 9. Umbilical Line, 1000 ft., Parker Multi-Tube, HMP&L 2, P.O. No. 97172.
- 10. Tools, (2) Sets for New Scrubber Employees, HMP&L 2, P.O. No. 97471.
- 11. Calibrator, Thermocouple, Tegam 840-A, HMP&L 2, P.O. No. 97518.
- 12. Green IUCS Conveyor Belt Scales, Green, Work Order 632.
- 13. Pipe, Thickener Overflow, G-1, Green, Work Order 590.
- 14. Pipe, Support, Thickener Overflow, G-2, Green, Work Order 590.
- 15. TEMS Umbilical Stack Sampling at Green, Green, Work Order 510.
- 16. TEMS Umbilical Stack Sampling at Reid Station, Reid, Work Order 510.
- 17. Analyzer, Limestone Particle Size, Outokumpu, Wilson, Work Order 578.
- 18. PC, Notebook, w/Interface Card for Scrubber, Wilson, P.O. No. 95510, Sager-Midern Computer.
- 19. Piping, from Thickener to CSI, Wilson, Work Order 522.
- 20. Pond, Landfill Runoff, with Dike, Wilson, Work Order 538.
- 21. Precipitator Controls, AVC 6000 (Acct 106), Wilson, Work Order 563.
- 22. Software for the Wilson CEM Data Acquisition, Wilson, P.O. No. 80556, Orr Safety Corporation.
- 23. Umbilical Line for Stack Testing, HMP&L 2, P.O. No. 95845, Booth Company.
- 24. HMP&L Ash Sluice Pump "B", HMP&L 2, Work Order 587.

B. Cover Letter dated October 16, 1995:

1. Tools, (2) Sets for New Scrubber Employees (Revised), HMP&L 2, S&K Air Power and Big River Rubber & Gasket.

- C. Cover Letter dated October 18, 1995:
 - 1. Pump, Toyo, Submersible Slurry, DL 7.5, 3 inch, HMP&L 2, P.O. No. 99106, Chase Pump & Equipment.
 - 2. Pump, Toyo, Submersible Slurry, DL3, 2 inch, HMP&L 2, P.O. No. 99106, Chase Pump & Equipment.
- D. Cover Letter dated December 19, 1995:
 - 1. Valve, 6 inch, Fly Ash, Hydrovactor Inlet, HMP&L-Reid-Green, P.O. No. 99958, Desurik.
- E. Cover Letter dated February 19, 1996:
 - 1. Scopemeter, Fluke 597 w/Probes and Adapters, Coleman, P.O. No. 101306, EIL Industries.